

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM**  
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B411 European Starling *Sturnus vulgaris*  
Family: Sturnidae Order: Passeriformes Class: Aves

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#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Introduced from Europe. Now a widespread and common to abundant resident of most of California, excluding higher mountains. Most common in urban, cropland, pasture, and orchard-vineyard habitats. Generally absent from higher montane habitats in Cascade Range and Sierra Nevada. Uncommon elsewhere in such habitats. In deserts of Great Basin and southern California, generally restricted to urban, cropland, pasture, orchard-vineyard, desert riparian, and palm oasis habitats. Also occurs in Joshua tree woodlands. In winter, much of the population withdraws from higher elevations and east of Cascade Range and Sierra Nevada (Marcot 1979, McCaskie et al. 1979, Airola 1980, Verner and Boss 1980, Garrett and Dunn 1981).

#### SPECIFIC HABITAT REQUIREMENTS

**Feeding:** Feeds on insects, other invertebrates, grains, seeds, nuts, fruits, garbage. Animal foods predominate in breeding season; plant foods are more important at other times. Usually forages on ground in open habitats or plucks fruits and nuts directly from tree or shrub. Commonly feeds in residential areas, feed lots, pastures, croplands, orchards, dumps.

**Cover:** Roosts in dense cover of trees, wetlands, thickets of large shrubs, even croplands, sometimes in buildings or other structures. Except while nesting, may roost in large flocks, often with blackbirds or cowbirds. In areas of residence, may roost in nest hole through the winter.

**Reproduction:** May nest in almost any cavity or crevice with an entrance diameter greater than 3.8 cm (1.5 in) Bent (1950). Cavity may be in a tree, nest box, or other structure (Bent 1950). Nest height of 0.6 to 61 m (2 to 200 ft) recorded. In absence of cavity, may nest on ground.

**Water:** Probably requires drinking water.

**Pattern:** Requires a suitable nest site, roost site, and a foraging area, usually in open habitat. May range as far as 1.2 km (0.75 mi) from nest and 80 km (50 mi) from winter roost to feed (Hamilton and Gilbert 1969).

#### SPECIES LIFE HISTORY

**Activity Patterns:** Yearlong, diurnal activity.

**Seasonal Movements/Migration:** Mostly not migratory in California. In winter, much of the population withdraws from higher elevations and areas east of Cascade Range and Sierra Nevada. Remaining individuals and migrants from Canada and northern U.S. are distributed

widely in agricultural areas, and often concentrated near human habitations and dumps (Gaines 1977b, Garrett and Dunn 1981).

**Home Range:** In New York agricultural areas, foraged up to 1.2 km (0.75 mi) from nest (Kessel 1957). Gathers in huge flocks in winter; disperses daily from roost to feeding areas 8-80 km (5-50 mi) distant (Hamilton and Gilbert 1969). In winter in Oregon, moved an average 18 km (11 mi) from roost to feed; home range averaged about 40 km<sup>2</sup> (15 mi<sup>2</sup>) (Bray et al. 1975).

**Territory:** In New York agricultural areas, male defended nest site and a 25-50 cm (10-20 in) radius around it (Kessel 1957).

**Reproduction:** Egg laying frequently begins in April. Monogamous; often nests near other pairs. Usually lays 4-6 eggs, range 3-8 (Bent 1950), and often raises 2 broods a year. Incubation lasts 12-15 days. Altricial young leave nest at 20-22 days (Harrison 1978). Young become independent a few days after fledging, and many breed at 1 yr (Kessel 1957).

**Niche:** An aggressive competitor for nest holes. Often evicts native bluebirds, titmice, nuthatches, swallows, wrens; sometimes even American kestrels (Small 1974), flickers (Kessel 1957), acorn woodpeckers (Troetschler 1976), or wood ducks (Grabill 1977, Heusmann et al. 1977, Heusmann and Bellville 1978). Also competes, sometimes unsuccessfully, with pigeons, screech-owls, purple martins, tree swallows, and house wrens (Bent 1950). Large numbers of intestinal parasites were found by Sommer (1937), Hair and Forrester (1970), and Cooper and Crites (1976). Common predators include cats and various hawks (Bent 1950, Kessel 1957). Frequently killed by humans because of damage to grain crops and nuisance caused by noise and droppings from huge winter flocks (Dolbeer et al. 1978).

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